

Title (en)

STORAGE CIRCUITRY RESPONSIVE TO A TAG-MATCHING COMMAND

Title (de)

AUF EINEN ETIKETTAGLEICHSBEFEHL REAGIERENDE SPEICHERSCHALTUNG

Title (fr)

CIRCUIT DE STOCKAGE SENSIBLE À UNE COMMANDE DE CORRESPONDANCE D'ÉTIQUETTE

Publication

EP 3549129 B1 20210310 (EN)

Application

EP 17771846 A 20170915

Priority

- GR 20160100608 A 20161129
- GB 2017052732 W 20170915

Abstract (en)

[origin: WO2018100331A1] Storage circuitry (64) comprises an array (32) of storage locations (34) arranged in rows and columns, a row buffer (36) comprising a plurality of entries (68) each to store information from a storage location at a corresponding column of an active row (46) of the array (32), and comparison circuitry (70) responsive to a tag-matching command specifying a tag value (72) to compare the tag value with information stored in each of a subset of two or more entries (68) of the row buffer (36). The comparison circuitry (70) identifies which of the subset of entries, if any, is a matching entry storing information matching the tag value. This allows memory technologies such as DRAM to be used more efficiently as a set-associative cache.

IPC 8 full level

G11C 7/10 (2006.01); **G06F 12/0846** (2016.01); **G06F 12/0864** (2016.01); **G06F 12/0895** (2016.01); **G11C 8/06** (2006.01); **G11C 8/08** (2006.01);
G11C 8/16 (2006.01); **G11C 11/408** (2006.01); **G11C 11/4093** (2006.01); **G11C 11/4096** (2006.01)

CPC (source: EP KR US)

G06F 12/0846 (2013.01 - EP KR); **G06F 12/0864** (2013.01 - EP KR US); **G06F 12/0895** (2013.01 - EP KR US); **G11C 7/1006** (2013.01 - EP KR);
G11C 7/106 (2013.01 - EP KR); **G11C 7/1063** (2013.01 - EP KR); **G11C 7/1066** (2013.01 - EP KR); **G11C 8/06** (2013.01 - EP KR);
G11C 8/08 (2013.01 - EP KR); **G11C 8/16** (2013.01 - EP KR); **G11C 11/1673** (2013.01 - US); **G11C 11/1675** (2013.01 - US);
G11C 11/40622 (2013.01 - US); **G11C 11/408** (2013.01 - EP KR); **G11C 11/4093** (2013.01 - EP KR); **G11C 11/4096** (2013.01 - EP KR);
G06F 2212/6082 (2013.01 - EP)

Citation (examination)

- US 2015220436 A1 20150806 - COORAY NIRANJAN [US], et al
- US 2010027329 A1 20100204 - LEE CHARLES C [US], et al
- US 2013304991 A1 20131114 - BOETTCHER MATTHIAS LOTHAR [GB], et al
- US 2013212585 A1 20130815 - TRAN THANG M [US]
- US 2013007358 A1 20130103 - HU JIE [US], et al
- US 6697909 B1 20040224 - WANG LI-KONG [US], et al
- US 2016188429 A1 20160630 - NOGUCHI HIROKI [JP], et al
- US 2011307664 A1 20111215 - PAVER NIGEL CHARLES [US], et al
- US 2013246696 A1 20130919 - WOODWARD PATRICE [GB]
- US 2013138892 A1 20130530 - LOH GABRIEL H [US], et al
- US 2003046510 A1 20030306 - NORTH GREGORY ALLEN [US]
- US 2010180083 A1 20100715 - LEE RUBY B [US], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2018100331 A1 20180607; CN 109983536 A 20190705; CN 109983536 B 20230721; EP 3549129 A1 20191009; EP 3549129 B1 20210310;
JP 2019536165 A 20191212; JP 7049338 B2 20220406; KR 102421311 B1 20220718; KR 20190087499 A 20190724;
US 10860495 B2 20201208; US 2019384718 A1 20191219

DOCDB simple family (application)

GB 2017052732 W 20170915; CN 201780072335 A 20170915; EP 17771846 A 20170915; JP 2019527315 A 20170915;
KR 20197017549 A 20170915; US 201716464019 A 20170915